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EXAMINER	
ROYDS, LESLIE A	

ART UNIT	PAPER NUMBER
1614	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/700,838	FIKSTAD ET AL.	
	Examiner	Art Unit	
	Leslie A. Royds	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 35-61 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 35-61 is/are rejected.

7)☒ Claim(s) 42 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 26 March 2004.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 35-61 are presented for examination.

Applicant's Preliminary Amendment filed December 12, 2003 has been received and entered into the application. Accordingly, claims 1-34 have been cancelled and new claims 35 – 61 have been added. Applicant's Information Disclosure Statement filed March 26, 2004 has been received and entered into the application. As reflected by the attached, completed copy of form PTO/SB/08A (2 pages total), the Examiner has considered the cited references.

Claim Objection

Claim 42 is objected to because of the following informality: the word "of" in the expression "...a slowly dissolving salt **of** a complex..." should be changed to "**or**" as per the present specification at page 14, lines 20-21.

Specification Objections

The disclosure is objected to because of the following minor informalities:

(i) the word "fenofibrate" is misspelled at page 8, line 31 of the disclosure; the word "carvedilol" is misspelled at page 10, line 14 of the disclosure; the word "macrogolglycerides" is misspelled at page 12, line 33 of the disclosure; the word "palmitostearate" is misspelled at page 15, line 28 of the disclosure; the word "polyethylene" is misspelled at page 16, line 1 of the disclosure; the word "trehalose" is misspelled at page 19, line 9 of the disclosure; and the word "cumulative" is misspelled at page 43, line 4 of the disclosure;

(ii) the sentence ending at page 16, line 12 of the disclosure fails to conclude with a period; and

(iii) the word "nanoencapsulation" at page 16, line 22 of the disclosure should be followed by a comma.

The use of the trademarks TETRAGLYCOL® or TRANSCUTOL®, for example, at page 17, lines 6 and 16, respectively, has been noted in this application. Each instance should be capitalized wherever it appears and be accompanied by the generic terminology. The citation of the use of these trademarks in the present specification is not intended to be an exhaustive list of all the trademarks used within the application and does not represent all of the places at which trademarks have been improperly used. Applicant is respectfully requested to capitalize all trademarked names and each should be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner that might adversely affect their validity as trademarks.

Claim Rejection - 35 USC § 112, First Paragraph, Written Description

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 41 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim has been added by the amendment filed December 12, 2003, to contain particular fatty acid or fatty acid derivative esters that are not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, has possession of the claimed invention. "If new matter is added to the claims, the Examiner should reject the claims under 35 U.S.C. 112, first paragraph-written description requirement. *In re Rasmussen.* 650 F.2d 1212, 211 USPQ 323 (CCPA 1981)." (MPEP §2163.06(I)).

In particular, the specification as originally filed fails to provide support for a fatty acid ester derivative of "caprylocaproyl macrogolglycerides" (claim 41). Respecting the claimed fatty acid ester derivative, Applicant is advised that the issue is not whether certain fatty acid ester derivatives disclosed in the specification as originally filed fall within the definition of "fatty acid ester derivative", but rather whether the concept of a fatty acid ester derivative specifically of "caprylocaproyl macrogolglycerides" was present in the specification as originally filed.

At page 7 of Applicant's amendment, under the heading "NEW CLAIMS", it is stated that support for new claims 41 and 53 may be found "at page 11, line 22 to page 13, line 2 and page 25, lines 12-29, respectively". The claims as previously filed, as well as the specification as a whole, have been carefully reviewed, but no support for the subject matter that is now claimed can be located.

In particular, the specification as originally filed contains the following disclosures concerning fatty acids or fatty acid derivatives used as solubilizers:

(i) "A variety of suitable solubilizers may be used as long as the aqueous solubility of the drug is increased....Particularly preferred fatty acid derivatives are esters with glycerol, propylene glycol, sorbitol, sucrose, glucose polyethylene glycol or an alpha-hydroxy acid." (page 11, line 13-page 13, line 4); and

(ii) "Preferred solubilizers include polyoxyl 40 castor oil...and d-α-tocopherol polyethyleneglycol 1000 succinate." (page 13, line 28-page 14, line 10).

The above disclosures, however, do not provide adequate support for a fatty acid ester derivative of "caprylocaproyl macrogolglycerides".

Written Description

An Applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams and formula that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997).

The Examiner is guided in her opinion that Applicant has not adequately described the presently claimed subject matter by the MPEP at §2163-2163.05. In particular, while Applicant's specification as originally filed contained a generic disclosure of fatty acid and fatty acid derivatives (see page 11, line 13-page 13, line 4 and page 13, line 28-page 14, line 10), such does not entitle Applicant to now claim a particular type of fatty acid ester derivative of "caprylocaproyl macrogolglycerides" (claim 41), because such represent a species that was not previously set forth or that would have been immediately envisaged by one skilled in the art from the specification as originally filed. "A lack of adequate written description issue also arises if

the knowledge and level of skill in the art would not permit one skilled in the art to immediately envisage the product claimed from the disclosed process. See, e.g., *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1571, 39 USPQ2d 1895, 1905 (Fed. Cir. 1996)" (emphasis added), see MPEP §2163(I)(A). Also "See also *In re Smith.* 458 F.2d 1389, 1395, 173 USPQ 679, 683 (CCPA 1972) ('Whatever may be the viability of an inductive-deductive approach to arriving at a claimed subgenus, it cannot be said that such a subgenus is necessarily described by a genus encompassing it and a species upon which it reads.' (emphasis added)).", see MPEP §2163.05(II).

Considering the teachings provided in the specification as originally filed, the Examiner finds that Applicant has failed to provide the necessary teachings, by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams and formula that fully set forth the claimed invention, in such a way as to reasonably convey to one skilled in the relevant art that Applicant had possession of the concept of the use of "caprylocaproyl macrogolglycerides" (claim 41) as a fatty acid or fatty acid derivative.

Accordingly, claim 41 is deemed properly rejected.

Claim Rejection - 35 USC § 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

I Claims 48-51 and 53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The MPEP sets forth the following at §2173:

> "The primary purpose of this requirement of definiteness of claim language is to ensure that the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent. A secondary purpose is to provide a clear measure of what applicants regard as the invention so that it can be determined whether the claimed invention meets all the criteria for patentability and whether the specification meets the criteria of 35 U.S.C. 112, first paragraph with respect to the claimed invention." (See MPEP §2173).

The term "about" in the expressions "more than about" (claims 48-49), "between about" (claim 50), "greater than about" (claim 51) and "about 15% w/w to about 95% w/w" (claim 53) is a relative term that renders the claim indefinite. The expression "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and thus one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The use of such a term would invite subjective interpretations of whether or not a particular dosage amount is included in or excluded from the present claims and what degree of variability outside the recited ranges is within the scope of the claims. Furthermore, the Examiner has noted the presence of the phrase "more than" or "greater than" or "between" in present claims 48-51. For example, the presence of "more than" in the phrase "more than about 1 hour" in present claim 48 indicates that the period of time over which release is controlled is greater than 1 hour. However, the presence of the word "about" denotes that the period of time may be slightly greater or slightly less than 1 hour. Thus, it is not clear which is meant to be the limiting term. It is the Examiner's position that the public would not be informed of the boundaries of what constitutes infringement of the present claims. Thus, the claims do not meet the tenor and express requirements of 35 U.S.C. §112, second paragraph and are, therefore, properly rejected.

II Claims 36, 42-44 and 46 are rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. The term "tocol derivative", "fatty acid derivative", "fatty alcohol derivative" or "cellulose derivative" in present claims 36, 42-44 and 46 are relative terms that render the claims indefinite. In particular, "derivative" does not particularly point out the degree or type of derivation that a given compound may have in relation to the parent compound and still be considered a "derivative" as intended by Applicant. Applicant has failed to provide any specific definition for this term in the present specification. Lacking a clear meaning of the term "derivative", the skilled artisan would not be reasonably apprised of the metes and bounds of the subject matter for which Applicant seeks patent protection.

In the present specification at page 11, line 22-page 12, line 18, Applicant has set forth:

> "Preferred fatty acids and alcohols are the C6-C22 fatty acids and alcohols, such as stearyl alcohol, capric acid, caprylic acid, lauric acid, myristic acid, stearic acid, oleic acid, linoleic acid, linolenic acid, arachidonic acid, behenic acid, and their corresponding pharmaceutically acceptable salts. Preferred fatty acid and fatty alcohol derivatives include sodium dioctyl sulfosuccinate...and polyglyceryl-10 mono, dioleate (Caprol® PEG 860)."

Such disclosure, however, does not render the claims definite. Words and phrases in the claims must be given their "plain meaning" as understood by one having ordinary skill in the art unless defined by Applicant in the specification with "reasonable clarity, deliberateness and precision" (MPEP §2111.01). Here, Applicants' definition, or lack thereof, of "derivative"' is not reasonably clear, deliberate or precise because the definition does not specify what other compounds may be considered tocol, fatty acid, fatty alcohol or cellulose derivatives. That is, the definition is presented in a non-limiting manner. Thus, the identity of those compounds that

are included or excluded by the term "derivative" is open to subjective interpretation and such is inconsistent with the tenor and express requirements of 35 U.S.C. §112, second paragraph.

III Claims 42-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The MPEP sets forth the following:

> "The primary purpose of this requirement of definiteness of claim language is to ensure that the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent. A secondary purpose is to provide a clear measure of what Applicants regard as the invention so that it can be determined whether the claimed invention meets all the criteria for patentability and whether the specification meets the criteria of 35 U.S.C. 112, first paragraph, with respect to the claimed invention." (See MPEP §2173).

In light of the guidance of MPEP §2173, which emphasizes the requirement of definiteness of claim language, the term "slowly" in the expression "slowly dissolving salt of a complex" (see claim 42, for example) and the term "high" in the expression "high molecular weight polysaccharide gum" (see claim 44, for example) are relative terms that render the claims indefinite. The expressions are not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and, thus, one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Use of the terms "slowly" and "high" would invite subjective interpretations as to what requisite rate the dissolution of the salt would need to occur in order to be considered a "slowly dissolving salt" and the standard against which dissolution is to be measured, what molecular weight of a polysaccharide gum would be considered high and what standard against which such a weight is to be measured. Thus, it is the

Examiner's position that the public would not be informed of the boundaries of what constitutes infringement of the present claims. Such subjective determinations are inconsistent with the tenor and express requirements of 35 U.S.C. 112, second paragraph, and claims 42-46 are, therefore, considered properly rejected.

IV Claim 42 is further rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. The use of the phrase "insoluble carrier" is considered indefinite because Applicant has failed to delineate in what substances the carrier would be considered insoluble. The lack of a reference point in order to determine the solubility of the carrier and, thus, to determine whether a particular carrier is inside or outside the scope intended by the present claims would invite subjective interpretations of whether a carrier is considered "insoluble" because the specification and the claims have not provided a requisite standard by which such a quality is to be measured. It is the Examiner's position that the public would not be informed of the boundaries of what constitutes infringement of the present claims. Such subjective determination is inconsistent with the tenor and express requirements of 35 U.S.C. 112, second paragraph, and claim 42 is appropriately rejected.

V Claim 51 is also further rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. The use of the phrase "correlation coefficient" is a term that renders the claim indefinite because the specification lacks a specific mathematical definition of how such a

coefficient is to be calculated. Although the specification at page 8, lines 3-9, provides a verbal explanation of the "correlation coefficient", Applicant has not provided a definitive explanation as to how such a number is determined. Thus, because the specification and the claims fail to define this term or provide a standard method of calculation in order to ascertain the numerical value, one of ordinary skill in the art would not be reasonably apprised of the scope of the invention or of what would constitute infringement of the present claims. Such subjective determinations are inconsistent with the tenor and express requirements of 35 U.S.C. 112, second paragraph, and claim 51 is, therefore, considered properly rejected.

Claim Rejection - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 35-46, 47-52, 55 and 57-61 are rejected under 35 U.S.C. 102(a) or 35 U.S.C. 102(e) as being anticipated by Patel et al. (U.S. Patent No. 6,569,463 B2; 2003). Patel et al. teaches a pharmaceutical composition comprising a hydrophobic active ingredient, such as

cilostazol (col.5, line 16), in combination with a variety of surfactants "used to provide any of several advantageous characteristics to the compositions, including: increased solubility of the active ingredient in the solid carrier; improved dissolution of the active ingredient; improved solubilization of the active ingredient upon dissolution, enhanced absorption and/or bioavailability of the active ingredient...and improved stability, both physical and chemical, of the active ingredient" (col.9, line 63-col.10, line 5). Surfactants disclosed by Patel et al. include any one or more of the following: PEG-35 castor oil, PEG-40 hydrogenated caster oil, PEG-60 hydrogenated castor oil, PEG-6 corn oil, PEG-6 almond oil, PEG-6 apricot kernel oil, PEG-6 olive oil, PEG-6 peanut oil, PEG-6 hydrogenated palm kernel oil, PEG-6 palm kernel oil, PEG-6 triolein, PEG-8 corn oil, PEG-8 caprylic/capric glycerides, lauroyl macrogol-32-glyceride, stearoyl macrogolglyceride (see Table 5, col.14-15), propylene glycol monocaprylate, propylene glycol monolaurate (see Table 7, col.16), glyceryl mono/dioleate, glyceryl caprylate/caprate, caprylic acid mono/diglycerides, mono- and diacetylated monoglycerides (see Table 9, col.16-18), PEG-20 sorbitan monopalmitate, PEG-20 sorbitan monostearate, PEG-20 sorbitan monooleate (see Table 11, col.18-19), sucrose distearate, sucrose dipalmitate, sucrose monopalmitate (see Table 13, col.19-20), polyoxyethylene-polyoxypropylene block copolymers (see col.20, line 29-col.21, line 24), sorbitan monooleate (see Table 16, col.21), fatty acid salts and bile salts (see Table 18, col.22-23), calcium/sodium stearoyl lactylate (see Table 18, col.22-23), derivatives of fat soluble vitamins, such as vitamin E or tocopherol PEG-1000 succinate (col.23, lines 55-60) or other polyethoxylated fat-soluble vitamins or derivatives (col.24, lines 15-16), hydrogenated vegetable oils (col.24, line 28), glycerol fatty acid esters (col.25, line 27), polyethylene glycol fatty acid esters (col.25, line 29), sorbitan fatty acid esters (col.25, lines 49),

polyoxyethylene hydrogenated vegetable oils (col.25, line 52), propylene glycol fatty acid esters (col.25, lines 56-57), mono- or diglycerides or mixtures of mono- and diglycerides (col.25, lines 62-65) and sorbitol (col.26, line 2).

Patel et al. also teaches the use of medium or long-chain triglycerides (col.27, line 54), glyceryl dibehenate (also known as Compritol 888, see Table 19, col.27, line 22), sugars, such as sucrose (col.28, line 31), cyclodextrins and cyclodextrin derivatives (col.29, lines 29-30), polyvinylpyrrolidone (col.29, lines 39-40), hydroxypropylmethylcellulose (col.29, line 60), polysaccharides, such as acacia, tragancanth, guar and alginates, and glucose (col.31, lines 20-24), lactic acid (col.31, line 33), tannic acid (col.31, line 36), gums, such as xanthan gum, gum arabic (col.32, lines 44-45), natural or synthetic waxes, carnauba wax (col.32, lines 45-46), fatty acids, fatty alcohols (col.32, lines 46-47), and shellacs, such as those based on sugars, polysaccharide-based shellacs, or cellulosic-based shellacs (col.32, lines 47-57).

Patel et al. teaches that the composition may be any one of a number of solid oral dosage forms, including a minicapsule, a capsules, a tablet, a lozenge, a wafer or a chewable tablet (col.33, lines 15-29) and that the release profile of the active ingredients can be effected by a "polymeric matrix composition, a coated matrix composition, a multiparticulate composition, a coated multiparticulate composition, an ion-exchange resin-based composition, as osmosis-based composition, or a biodegradable polymeric composition" (col.33, lines 44-49). Acrylic polymer, cellulose derivatives or polyvinyl acetate phthalate coatings may be used in the formulation of the composition (col.35, lines 4-45). The formulations of the composition discloses in Patel et al. "can be designed for immediate release, pulsatile release, controlled release, extended release,

delayed release, targeted release, synchronized release or targeted delayed release" (col.33, lines 35-38).

Also, because Patel et al. teaches the concept of "extended release" and "controlled release", and shows such release over a period of time that is at least 180 minutes (see, e.g., Figure 1), the claimed elements of claims 47-50 are taught by the patentees.

The Examiner cannot calculate the requirement of claim 51 because a mathematical formula for doing such has not been provided (see above under "Claim Rejections-35 U.S.C. Second Paragraph", Heading V). A "correlation coefficient of greater than about 0.80" is nevertheless believed to be present because in both the present claims and the reference, the same materials are employed to produce the same composition. Also, Patel et al. expressly discloses "synchronized release" at col.33, lines 37-38.

Although Patel et al. does not specifically teach "a slowly dissolving salt of a complex" as recited in present claim 42, Applicant has acknowledged in the present specification that such a term, for example, indicates a complex with tannic acid at page 14, lines 20-21 of the disclosure. Tannic acid is taught by Patel et al. at col.31, line 36, as are fatty acid salts and bile salts, for example (see Table 18, col.22-23), and such disclosure, absent factual evidence or direction to the contrary, is considered to anticipate this claim limitation.

Although the reference does not expressly teach the use of linoleoyl macrogolglyceride, Applicant has acknowledged in the present specification that linoleoyl macrogolglyceride is synonymous with the trade name LABRAFIL® at page 12, line 33 of the disclosure, which is taught by Patel et al. in Table 5, col.14, lines 42-53. Thus, the reference discloses the use of linoleoyl macrogolglycerides and, therefore, anticipates this claim limitation in present claims 40

and 41. Patel et al. teaches the use of lactic acid at col.31, lines 33, which is known in the art to be synonymous with a hydroxyl acid as recited in present claim 39 (see Stedman's Medical Dictionary 22nd Edition, 1973, p.595) and is, therefore, considered to anticipate this claim limitation. Furthermore, Patel et al. teaches the use of Vitamin E in the disclosed pharmaceutical composition, which is known in the art to be synonymous with alpha-tocopherol (see Stedman's Medical Dictionary 22nd Edition, 1973, p.1400) and, therefore, is considered to anticipate the claim limitation of alpha-tocopherol in present claims 38 and 45. In concurrence with MPEP §2131.01, it is proper to rely on another reference for a rejection under 35 U.S.C. 102, provided that the additional reference is relied upon in order to explain the meaning of a term used in the primary reference.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claim Rejection - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 35-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patel et al. (U.S. Patent No. 6,569,463; 2003) for the reasons of record set forth above in view of Royce (U.S. Patent No. 5,403,593; 1995), Lambert et al. (U.S. Patent No. 6,458,373; 2002), Cawley et al. (U.S. Patent No. 2,680,749; 1954) and Chen et al. (U.S. Patent No. 6,623,755; 2003).

The differences between the Patel et al. reference and the presently claimed subject matter lie in that the reference does not teach:

(i) the use of glycerol palmitostearate or glycerol dipalmitate;

(ii) the use of microcrystalline wax, yellow wax, white wax, nonionic emulsifying wax, or cetyl esters wax;

(iii) the use of tocol derivatives, such as alpha-tocopherol ester, alpha-tocopherol acetate, alpha-tocopherol nicotinoate, alpha-tocopherol succinate, alpha-tocopherol polyethylene glycol

succinate of various molecular weights (400 or 200-8000) and d- or dl-alpha-tocopherol polyethylene glycol 1000 succinate; and

(iv) the presently claimed %w/w of cilostazol, solubilizer and release modulator of present claim 53.

However, the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains because:

(i) Glycerol palmitostearate and glycerol dipalmitate were well known in the art at the time of the invention as lipid components, especially useful in the preparation of sustained release pharmaceutical dosage forms (see abstract of Royce, for example, and col.4, lines 32-50). It would, therefore, have been well within the purview of a person of ordinary skill in the art at the time of the invention to use any one of glycerol palmitostearate or glycerol dipalmitate as a lipophilic surfactant in the pharmaceutical composition disclosed by Patel et al. because each would be reasonably expected to function or exert the same or similar effect as the other surfactants disclosed by the reference.

(ii) Although Patel et al. does not expressly disclose the use of microcrystalline wax, yellow wax, white wax, nonionic emulsifying wax, or cetyl esters wax, the reference broadly teaches the use of natural or synthetic waxes at col.32, lines 45-46. However, it was well known in the art at the time of the invention that microcrystalline wax, yellow wax, white wax, cetyl esters wax and other waxes, such as avocado wax, lanolin wax or palm kernel wax, were useful

in the art as wax coatings for pharmaceutical tablets (see Chen et al., col.6, lines 45-60 and col.7, lines 3-4). It would, therefore, have been obvious to the skilled artisan in light of the broad teachings of Patel et al. to use other natural or synthetic waxes known in the art at the time of the invention as a component of the pharmaceutical composition disclosed in Patel et al.

(iii) The broad disclosure of Patel et al. teaches the use of Vitamin E (also known as alpha-tocopherol, see above under "Claim Rejection-35 U.S.C. 102") or derivatives, such as tocopherol polyethylene glycol 1000 succinate (col.23, lines 55-60). Although Patel et al. does not expressly teach the use of alpha-tocopherol ester, alpha-tocopherol acetate, alpha-tocopherol nicotinoate, alpha-tocopherol succinate, alpha-tocopherol polyethylene glycol succinate of various molecular weights (400 or 200-8000) and d- or dl-alpha-tocopherol polyethylene glycol 1000 succinate, alpha-tocopherol esters, including alpha-tocopherol acetate, alpha-tocopherol succinate, alpha-tocopherol nicotinoate and tocopherol polyethylene glycol succinate (also known as d-alpha-tocopherol polyethylene glycol 1000 succinate) were well known in the art at the time of the invention (see Lambert et al., col.5, lines 10-14 and col.22, lines 54-57). It would, therefore, have been obvious to a person of ordinary skill in the art at the time of the invention to employ any one or more of the known vitamin E (alpha-tocopherol) derivative compound well known in the art as a component of the pharmaceutical composition disclosed by Patel et al. Furthermore, it would also have been well within the purview of the skilled artisan at the time of the invention to employ alpha-tocopherol polyethylene glycol succinate of varying molecular weights or various enantiomeric forms (e.g., dl-alpha-tocopherol polyethylene glycol 1000 succinate) as a component of the pharmaceutical composition disclosed by Patel et al. because these alpha-tocopherol derivatives would be reasonably expected to function in the same

or similar manner and exert the same or similar effect as that of alpha-tocopherol polyethylene glycol 1000 succinate. Such tocopherol polyethylene glycol succinate compounds of, for example, molecular weights of 400-6000 or more (see Cawley et al., U.S. Patent No. 2,680,749; col.2, line 47-col.3, line 3) were well known in the art as water-soluble tocopherol derivatives and use of such would have been well within the purview of the skilled artisan for the reasons of record set forth above.

(iv) Patel et al. broadly teaches the pharmaceutical composition comprising the active ingredient cilostazol in combination with a solubilizer of the type recited in the present claims and a release modulator of the type recited in the present claims. However, the reference does not expressly teach particular %w/w of active ingredient, solubililzer and release modulator as recited in present claim 53. However, the determination of the optimum %w/w of components would have been a matter well within the purview of one of ordinary skill in the art at the time of the invention. Such a determination would have been made in accordance with a variety of factors, including the age, weight, sex, diet, medical condition, severity of disease, the route of administration, pharmacological considerations, such as the activity, efficacy, pharmacokinetics and toxicology profiles of the particular compound employed, whether a drug delivery system is utilized and whether the compound is administered as part of a drug combination. Thus, the %w/w of the components of the composition would vary widely and, in the absence of evidence to the contrary, the currently claimed %w/w of components are not seen to be inconsistent with the component profile that would have been determined by the skilled artisan.

Double Patenting

Obviousness-Type

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Provisional

Claims 35-61 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-90 of copending U.S. Patent Application No. 10/428,431. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending claims clearly provide for the limitations of the present claims of the instant application. For example, the active agent cilostazol as recited in present claim 1 is clearly provided for in copending claim 24 (see line 7). The solubilizing compounds, such as fatty acids, fatty acid derivatives, PEG compounds or tocopherol PEG-1000 succinate as recited in present claims 36-41 are clearly provided for, for example, in copending claims 11 and 33-49. The release modulators, such as ion exchange resins, fatty acids or fatty acid derivatives as recited in present claims 42-46 are clearly provided

for, for example, in copending claims 9, 11 and 33-49. Furthermore, by the very nature of being present in the same composition at the same time, the release of both the drug and the solubilizer component of the pharmaceutical composition of the copending claim is considered to be "synchronized" and thus provides for this limitation of present claim 1.

Although the copending claims are silent as to a weight/weight ratio of components of the pharmaceutical composition as recited in present claim 53, such a determination of the optimum ratios of the components comprising the pharmaceutical composition was a matter well within the purview of one of ordinary skill in the art and such a determination would have been made in accordance with a variety of factors, such as age, weight, sex, diet and medical condition of the patient, severity of the disease, the route of administration, pharmacological considerations, such as the activity, efficacy, pharmacokinetics and toxicology profiles of the particular compound employed, whether a drug delivery system is utilized and whether the compound is administered as part of a drug combination. Thus, the component ratios within the scope of the present claims would not have been inconsistent with those within the scope of the copending claims. Furthermore, the controlled release profile of the composition as recited in present claims 47-51 is also provided for by the copending claims because release of the composition is, by the very nature of pharmacokinetics, "controlled" over the time that the composition is resident in the host. Thus, such a determination of the optimum component ratios and the release profile is not considered to render the present claims patentably distinct from those of the copending application.

Present claims 35-61 are, therefore, deemed properly rejected over copending claims 1-90 of copending application number 10/428,431 under the doctrine of obviousness-type double patenting.

Non-Provisional

I Claims 35-43, 45-56 and 59-61 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25, 28-51 and 54-55 of U.S. Patent No. 6,569,463. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patented claims clearly provide for the limitations of the present claims of the instant application. For example, the active agent cilostazol as recited in present claim 1 is clearly provided for in patented claim 5 (see line 26). The solubilizing compounds, such as fatty acids, fatty acid derivatives, PEG compounds or tocopherol PEG-1000 succinate as recited in present claims 36-41 are clearly provided for, for example, in patented claims 10, 12, 19, 39, 41 and 45 (see patented claim 10 for tocopherol PEG-1000 succinate). Vitamin E and derivatives thereof is expressly provided for in patented claim 34 (see lines 41-44). The release modulators, such as ion exchange resins, fatty acids or fatty acid derivatives as recited in present claims 42-46, are clearly provided for, for example, in patented claims 15, 10, 12, 19, 39, 41 and 45. Furthermore, by the very nature of being present in the same composition at the same time, the release of both the drug and the solubilizer component of the pharmaceutical composition of the patented claims is considered to be "synchronized" and thus provides for this limitation of present claim 1.

Although the copending claims are silent as to a weight/weight ratio of components of the pharmaceutical composition as recited in present claim 53, such a determination of the optimum ratios of the components comprising the pharmaceutical composition was a matter well within the purview of one of ordinary skill in the art and such a determination would have been made in accordance with a variety of factors, such as age, weight, sex, diet and medical condition of the patient, severity of the disease, the route of administration, pharmacological considerations, such as the activity, efficacy, pharmacokinetics and toxicology profiles of the particular compound employed, whether a drug delivery system is utilized and whether the compound is administered as part of a drug combination. Thus, the component ratios within the scope of the present claims would not have been inconsistent with those within the scope of the copending claims. Furthermore, the controlled release profile of the composition as recited in present claims 47-51 is also provided for by the copending claims because release of the composition is, by the very nature of pharmacokinetics, "controlled" over the time that the composition is resident in the host. Thus, such a determination of the optimum component ratios and the release profile is not considered to render the present claims patentably distinct from those of the copending application.

Present claims 35-61 are, therefore, deemed properly rejected over patented claims 1-25, 28-51 and 54-55 of U.S. Patent No. 6,569,463 under the doctrine of obviousness-type double patenting.

II Claims 35-61 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-61 and 65-74 of U.S. Patent No. 6,294,192.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the patented claims clearly provide for the limitations of the present claims of the instant application. For example, the active agent cilostazol as recited in present claim 1 is clearly provided for in patented claim 39 (see line 57). The solubilizing compounds, such as fatty acids, fatty acid derivatives, PEG compounds or tocopherol PEG-1000 succinate as recited in present claims 36-41 are clearly provided for, for example, in patented claims 8-30 (see, specifically, claim 15 for tocopherol polyethylene glycol succinate). Vitamin E and derivatives thereof is expressly provided for in patented claim 41 (see lines 28-34). The release modulators, such as polyvinylpyrrolidone, fatty acids or fatty acid derivatives as recited in present claims 42-46, are clearly provided for, for example, in patented claims 8-30 and 47-51. Furthermore, by the very nature of being present in the same composition at the same time, the release of both the drug and the solubilizer component of the pharmaceutical composition of the patented claims is considered to be "synchronized" and thus provides for this limitation of present claim 1.

Although the copending claims are silent as to a weight/weight ratio of components of the pharmaceutical composition as recited in present claim 53, such a determination of the optimum ratios of the components comprising the pharmaceutical composition was a matter well within the purview of one of ordinary skill in the art and such a determination would have been made in accordance with a variety of factors, such as age, weight, sex, diet and medical condition of the patient, severity of the disease, the route of administration, pharmacological considerations, such as the activity, efficacy, pharmacokinetics and toxicology profiles of the particular compound employed, whether a drug delivery system is utilized and whether the compound is administered as part of a drug combination. Thus, the component ratios within the scope of the present claims

would not have been inconsistent with those within the scope of the copending claims. Furthermore, the controlled release profile of the composition as recited in present claims 47-51 is also provided for by the copending claims because release of the composition is, by the very nature of pharmacokinetics, "controlled" over the time that the composition is resident in the host. Thus, such a determination of the optimum component ratios and the release profile is not considered to render the present claims patentably distinct from those of the copending application.

Present claims 35-61 are, therefore, deemed properly rejected over patented claims 1-61 and 65-74 of U.S. Patent No. 6,294,192 under the doctrine of obviousness-type double patenting.

III Claims 35-36, 39-40, 42-43, 45, 47-53, 55 and 59-61 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,720,001, in view of The Merck Index (Monograph 9931). Although the conflicting claims are not identical, they are not patentably distinct from each other because the patented claims clearly provide for the limitations of the present claims of the instant application. For example, the active agent cilostazol as recited in present claim 1 is clearly provided for in patented claim 16 (see line 37). The solubilizing compounds and release modulators, such as fatty acids or fatty acid derivatives as recited in present claims 36, 39-40 and 42-43 are clearly provided for, for example, in patented claims 7-10. Furthermore, by the very nature of being present in the same composition at the same time, the release of both the drug and the solubilizer component of the pharmaceutical composition of the patented claims is considered to be "synchronized" and thus provides for this limitation of present claim 1.

Although the copending claims are silent as to a weight/weight ratio of components of the pharmaceutical composition as recited in present claim 53, such a determination of the optimum ratios of the components comprising the pharmaceutical composition was a matter well within the purview of one of ordinary skill in the art and such a determination would have been made in accordance with a variety of factors, such as age, weight, sex, diet and medical condition of the patient, severity of the disease, the route of administration, pharmacological considerations, such as the activity, efficacy, pharmacokinetics and toxicology profiles of the particular compound employed, whether a drug delivery system is utilized and whether the compound is administered as part of a drug combination. Thus, the component ratios within the scope of the present claims would not have been inconsistent with those within the scope of the copending claims. Furthermore, the controlled release profile of the composition as recited in present claims 47-51 is also provided for by the copending claims because release of the composition is, by the very nature of pharmacokinetics, "controlled" over the time that the composition is resident in the host. Thus, such a determination of the optimum component ratios and the release profile is not considered to render the present claims patentably distinct from those of the copending application.

Although the patented claims do not expressly provide for the use of Vitamin E in the patented pharmaceutical composition as recited in the present claims, the patented claims provide for the presence of Vitamin E. For example, patented claim 8 teaches a variety of various plant oils, which, as established by The Merck Index (see Monograph 9931, p.1579) contain large amounts of Vitamin E, which is found mainly in plant materials, especially corn

oil, as recited in patented claim 8. Therefore, the use of Vitamin E is clearly provided for in the patented claims and, thus, the present claims are not considered to be patentably distinct.

Present claims 35-36, 39-40, 42-43, 45, 47-53, 55 and 59-61 are, therefore, deemed properly rejected over patented claims 1-21 of U.S. Patent No. 6,720,001 under the doctrine of obviousness-type double patenting.

Conclusion

Rejection of claims 35-61 is deemed proper.

No claims of the present application are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie A. Royds whose telephone number is (571)-272-6096. The examiner can normally be reached on Monday-Friday (8:30 AM-6:00 PM), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on (571)-272-0951. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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March 16, 2005

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